REMARKS

Claims 1 – 28 are canceled in the present Amendment. New claims 29 – 49 are added in the present Amendment. No new matter is added.

Applicants thank Examiner Barnhart for her consideration and guidance during a telephone interview on the above-referenced application on February 11, 2008. In accordance with the telephone interview, Applicants are providing an election of invention below to be responsive to the pending Restriction Requirement, although it is understood from the interview that the present Amendment moots the pending Restriction Requirement, and may necessitate a new Restriction Requirement.

Response to Restriction Requirement

In response to the Restriction Requirement dated October 12, 2007, and in accordance with the telephone conference with Examiner Barnhart, above, Applicants elect **Group III** (claims 13 – 19), **with traverse**. It is Applicants' understanding from the telephone interview with the Examiner (above) that this election will be considered fully responsive to the pending Restriction Requirement, even as the present Amendment moots the Restriction Requirement.

The reasons for traverse of the pending Restriction are that the claims possess unity of invention. The main contribution of the invention (identified as Group III in the Election/Restriction Office Action) is the *in vitro* differentiation of stem cells into

cardiomyocytes, and this *in vitro* differentiation can be considered the first step of the therapeutic method for treating heart failure conditions; i.e., the invention defined as Group VI in the Examiner's Office Action. Therefore, unity of invention exists at least between Group III and VI inventions, as it is clear from the Specification at pages 10 – 11:

> "The esters of the present invention are cardiogenic agents for stem cells and are therefore usable for repairing myocardial damage with autologous or heterologous stem cells. Therefore, the present invention includes a process to induce cardiogenic differentiation *ex-vivo* in autologous or heterologous stem cells for heart tissue repair in myocardial infarction or in heart failure caused by acquired pathologies (post-infarction, ischemic, or associated with valvular damage) or determined on a genetic basis (hypertrophic or dilated cardiomyopathies). This process includes the treatment of autologous or heterologous stem cells with the esters of the present invention in suitable culture medium, and optionally the selection of contractile cardiomyocytes and their subsequent *in vivo* re-implantation. Therefore, the present invention includes a therapeutic method for treatment of heart failure caused by acquired pathologies (post-infarction, ischemic, or associated with valvular damage), or determined on a genetic basis (hypertrophic or dilated cardiomyopathies) or myocardial infarction. The method includes the isolation of stem cells preferably autologous, the treatment of said cells with retinoic esters of hyaluronic acid, and optionally the selection of differentiated stem cells for further re-implantation of the differentiated cardiomyocytes in the patient." (page 10, line 22, to page 11, line 7) [emphasis added].
>
> "Therefore, the cells differentiated according to the invention preferably further selected, consist of embryonic cardiomyocytes capable of contracting rather than of undifferentiated elements. Therefore, the cardiomyocytes obtained according to the description of the invention are useful in cell therapy of patients with myocardial infarction or heart failure caused by acquired pathologies (post-infarction, ischemic, or associated with valvular damage) or determined on a genetic basis (hypertrophic or dilated cardiomyopathies)." (page 10, lines 2 – 8) [emphasis added].

Also, the additional species restriction of stem cells is traversed. Applicants respectfully request that further restriction not be based on stem cell lines, as Applicants have shown that differentiation occurs in more than one species of stem cells and is

applicable to heterologous or autologous stem cells isolated from mammals; therefore, any further limitation would not correspond to the contribution of the present invention, which extends beyond its applicability in stem cell *lines* such as P19, D3, R1 and GTR1.

Amendment:

The new claims (numbered 29 – 49 herein) were previously transmitted to the USPTO with the Applicants' National Stage filing on July 14, 2005. However, the claims and other parts of the application filed were classified as "Documents submitted with 371 Applications" (28 pages), and not as "Claims." The present Amendment, canceling claims 1 – 28 and adding claims 29 – 49, amends the claims as intended when the above-referenced application entered the National Stage.

In view of the present Amendment, Applicants respectfully request consideration of claims 29 – 49.

Respectfully submitted,

Date: 3/12/08

Paul D. Greeley
Reg. No. 31,019
Attorney for Applicants
Ohlandt, Greeley, Ruggiero & Perle, LLP
One Landmark Square, 10th Floor
Stamford, CT 06901-2682
Tel: (203) 327-4500
Fax: (203) 327-6401